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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,803	12/29/2003	Ajay G. Gupta	884.A47US1	5339
21186 7590 03/19/2007 SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER THIER, MICHAEL	
			ART UNIT 2617	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/19/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/749,803

Applicant(s)

GUPTA ET AL.

Examiner

Michael T. Thier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation "...at a different ring than..." is not explained in the specification in enough detail for one of ordinary skill in the art to understand what is being claimed.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al. (US 2002/0072391) in view of Chlytchkov (US 7065638), in further view of Krantz et al. (US 2004/0153676).

**Regarding claims 1, 9, 15 and 23.** Itoh teaches a system (figure 1) comprising a wireless base-station (figure 1 item 9-1) and a user device (figure 1 item 10). The user device connected to the wireless base station (see figure 1, the dotted line between 20-1 and 9-1), and the device comprising: a plurality of network adapters in a user device to connect to a system (see figure 1 items 20-1, 20-2, 20-3, and 20-4); a sensing driver adapted to sense an operational state of at least two of the plurality of network adapters (see par. 13, i.e. "...determining whether all the communication adapters configured in the system are available or not..."); a policy manager adapted to receive state information from the sensing driver and to selectively activate at least one of the plurality of network adapters based on the state information and a hierarchy of preferred network adapters (see par. 13, i.e. "...enabling the communication adapter specified by the user if it is determined that the communication adapter specified by the user is available", also see par. 15 for the hierarchy, or "priorities", for setting the adapters to be enabled/disabled), the policy manager being adapted to selectively hold others of the plurality of network adapters based on the state information and a hierarchy of preferred network adapters in a reduced power state (par. 13, i.e. "...disabling, among communication adapters determined to be available, communication adapters other than the enabled communication adapter...", also see par. 15 for the hierarchy, or "priorities", for setting the adapters to be enabled/disabled). Itoh further teaches of a

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power saving in a notebook PC (par. 8) and the idea that the software contains multiple layers (figure 1 items 7 and 8).

However, Itoh does not distinctly disclose that the sense driver and policy manger are at different levels and that the sense driver is at the kernel level.

Chlytchkov teaches a computer system and method in which the software may contain several layers in column 1 lines 31-46. He teaches the idea that device drivers reside in the kernel layer in column 4 lines 27-45 (i.e. the claimed sense driver is located in the kernel layer). He further teaches in column 4 lines 27-45 that the software may contain an application layer, which communicates with the device driver (in the kernel layer) to communicate with the corresponding device. (i.e. the application layer may contain the policy manger to control the wireless network adaptor since it communicates with the driver in the kernel layer, to effectively then communicate with the actual device (i.e. wherein the actual device may be the wireless network adaptor.)

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Chlytchkov into the teachings of Itoh. The motivation for doing so would have been to make it easier to allow for adding new features and new software (Chlytchkov column lines 26-30, and 46-53).

However, they do not distinctly disclose that the system comprises a battery.

Krantz discloses a method and apparatus for managing power in a network interface modules (title and abstract). He teaches the idea of the portable computing device, i.e. laptop computer from par. 2, comprises a battery (see par. 2 and 4, where he explains the need to minimizing power consumption to extend battery life.)

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Krantz into the teachings of Itoh and Chlytchkov. The motivation for doing so would have been to allow for greater mobility, and minimizing power consumption of the battery. (Krantz par. 2 and 4)

**Regarding claim 2.** Itoh further teaches, wherein the policy manager is adapted to selectively hold at least one of a non-selected group of the plurality of wireless network adapters in a reduced power state, and wherein the non-selected group does not include an activated one of the plurality of wireless network adapters. (see par. 21)

**Regarding claim 3.** Itoh further teaches, wherein the policy manager is adapted to store a hierarchy of preferred wireless network adapters. (see par. 15)

**Regarding claim 4.** Itoh further teaches, wherein the policy manager is further adapted to selectively activate at least one of the plurality of wireless network adapters based on the hierarchy of preferred wireless network adapters. (see par. 15)

**Regarding claim 5.** Itoh further teaches, wherein the policy manager is adapted to be programmed by a user to establish the hierarchy of preferred wireless network adapters. (see par. 13, i.e. "...specified by a user..." and par. 15)

**Regarding claim 6.** Krantz further teaches wherein the plurality of wireless network adapters include at least one wireless network interface card adapted to operate according to an IEEE 802.11x standard in par. 3.

**Regarding claim 7.** Krantz further teaches wherein the plurality of wireless network adapters include at least one wireless network interface card adapted to operate according to general packet radio service standard (GPRS) in par. 51.

**Regarding claim 8.** Itoh further teaches, wherein the sense driver is adapted to continuously sense the operational state of each of the plurality of wireless network adapters. (see par. 13)

**Regarding claim 10.** Itoh further teaches, wherein the policy manager is adapted to conserve power in the battery by deactivation of the non-selected ones of the plurality of network adapters. (see par. 11, and 21)

**Regarding claim 11.** Itoh further teaches the idea of the system comprising a host (figure 1 item 5) and a user input/output interface (see par. 42, i.e. "...expansion slot..."). It would have been obvious to one of ordinary skill in the art to power these components using the battery of the notebook PC.

**Regarding claim 12.** Itoh further teaches wherein the power source provides power to run the sensing driver and the policy manager where he explains that the system can be a notebook PC (par. 10). Krantz teaches the power source being a battery to allow for portability.

**Regarding claim 13.** Itoh further teaches wherein the plurality of network adapters includes at least one wireless network adapter (figure 1 item 20-1 and par. 13 and 43, i.e. "communication adapter 20-1 is a wireless card...").

**Regarding claim 14.** Itoh further teaches, wherein the selected one of the plurality of network adapters is continuously powered by the battery to maintain a connection with a base-station. (par. 13, and 21, the power supply is stopped for disabled adapters, and left to supply enabled adapters to allow communication, par. 72 explains the adapter communicates with an external entity (i.e. a base station))

**Regarding claims 16 and 26.** Itoh further teaches, wherein storing the hierarchy includes programming a network connection priority and a number of preferred available network adapters. (see par. 15)

**Regarding claims 17 and 27.** Itoh further teaches, wherein storing a hierarchy of network adapters includes storing at least one wireless network adapter in the hierarchy (see par. 15), wherein activating the preferred network adapter includes attempting to connect the wireless network adapter to a wireless base-station of a wired network (see par. 15, i.e. "...a given communication adapter among said stored number of communication adapters is enabled...", enabling the adapter reads on attempting to connect to a wireless base station, since the adapter can be wireless. Par. 72 explains the adapter communicates with an external entity (i.e. a base station))

**Regarding claims 18 and 28.** Itoh further teaches, wherein sensing available wireless network adapters includes continuously sensing for newly available wireless network adapters. (see par. 16, i.e. "...attachment/detachment of a LAN card...")

**Regarding claims 19 and 29.** Itoh further teaches, wherein activating a preferred available, network adapter includes deactivating a less preferred network adapter if a more preferred network adapter is sensed to be available. (see par. 13 and 15)

**Regarding claims 20 and 30.** Krantz further teaches wherein sensing available network adapters includes continuously sensing whether the connection between the network adapter and the base-station is dropped in par. 8 where he explains the step of determining whether the network interface module can go into a doze state by detecting



if there are packets queued for the device to receive (i.e. if the device is connected to the access point to receive packets).

**Regarding claims 21-22 and 31.** Itoh further teaches the idea wherein the activating of a preferred available network adapter includes deactivating the preferred network adapter if the preferred network adapter is sensed to be unavailable and activating a next, less preferred network adapter. See par. 27-28 where it is explained that the system enables an adapter only if the adapter is available, and that the user can select another adapter to be enabled, and the previously enabled adapter will be disabled in order to enable the new adapter. The user clearly has the ability to activate a next adapter with a lower priority if the adapter enabled loses connection or is unavailable.

**Regarding claim 24.** Krantz further teaches wherein the plurality of wireless network adapters include at least one wireless network interface card adapted to operate according to an IEEE 802.11x standard, the GPRS standard, IEEE802.2, or IEEE802.3 standards in par. 3.

**Regarding claim 25.** Krantz further teaches wherein the plurality of wireless network adapters include a first network adapter to communicate by GPRS and a second to operate by an IEEE 802.11x standard in par. 51.

**Regarding claim 32.** Itoh further teaches wherein the kernel level sense driver is in the user device to connect to an electronic system in par. 13, where he explains the method of a communication adaptor selection, within a laptop computer, which allows for connecting to a LAN.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

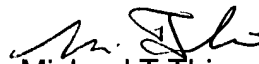
7. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael T. Thier whose telephone number is (571) 272-2832. The examiner can normally be reached on Monday thru Friday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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Examiner  
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3/06/2007



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